NICKEL ALLOY

C276 - 2.4819

BORNMORE METALS

C276 - 2.4819

Stainless Steel 316 is one of the most widely used and versatile stainless steels, prized for its corrosion resistance and suitability for a broad range of applications. The 316L low carbon content helps reduce the susceptibility to sensitisation during welding, making 316L suitable for applications where post-welding annealing is not practical.

KEY FEATURES

- Excellent corrosion resistance
- Strength and mechanical properties
- Heat resistance
- General weldability
- General weldability

CHEMICAL PROPERTIES

Molybdenum (Mo)	Chromium (Cr)	Iron (Fe)	Tungsten (W)	Cobalt (Co)	Manganese (Mn)	Vanadium (V)	Silicone (Si)	Carbon (C)	Sulphur (S)	Nickel (Ni)
15-17%	**15-16.5%**	**4-7%**	**3-4.5%**	**2.5%**	**1%**	**0.1-0.3%**	**0.08%**	**0.01%**	**0.01%**	**rest**

MECHANICAL PROPERTIES

Tensile strength (N/mm²)	**500-700**
Yield strength (N/mm²)	**170-220**
Elongation (% in 4D)	**40**
Hardness - Rockwell C (HRC) max	**92**
Hardness - Brinell (HB) max	**217**

PHYSICAL PROPERTIES

Density (kg/m³)		**8000**
Modulus of elasticity (Gpa)		**193**
Mean coefficient of thermal expansion	0-100ºC (µm/m/°C)	**15.9**
	0-350ºC (µm/m/°C)	**16.2**
	0-538ºC (µm/m/°C)	**17.5**
Thermal conductivity	at 100ºC (W/m.K)	**16.3**
	at 500ºC (W/m.K)	**21.5**
Specific Heat 0-100ºC (J/kg.K)		**500**
Electrical resistivity (nΩ.m)		**740**
Melting point (ºC)		**1450**

MARKET SECTORS

Food & Beverage Industry

Conveyors, mixers, brewing and distillation equipment

Chemical Processing

Reactors, storage tanks, piping systems, heat exchangers

Marine Equipment

Boat fittings, hardware, coastal structures

Medical Devices

Surgical instruments, implants, dental instruments

Pharmaceutical Industry

Vessels, reactors, piping systems, processing equipment

Aerospace Industry

Aircraft structural components, engine parts, hardware

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